

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Offic**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JK

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/474,916 12/29/99 NANKO

Y SIC-99-036

PM82/0719

EXAMINER

DELAND LAW OFFICE
2010 CROW CANYON PLACE
SUITE 100
SAN RAMON CA 94583

CHARLES, M

ART UNIT

PAPER NUMBER

3682

DATE MAILED:

07/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Offic Action Summary	Application No.	Applicant(s)
	09/474,916	NANKO ET AL.
	Examiner	Art Unit
	Marcus Charles	3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 December 1999 .
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 3,5,11-13,16-18,26-30,33,34 and 37 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4,6,8-10,14,19-23,32,35 and 36 is/are rejected.
- 7) Claim(s) 7,24,25 and 31 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
- 4) Interview Summary (PTO-413) Paper No(s) _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

This is the first action with merit relating to application serial number 09/474,916 filed 12/29/99. Claims 1-37 are currently pending.

Election/Restrictions

1. Applicant's election of species 1 (figs. 4-12) in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 3, 5, 11-13, 16-18, 26-30 and 33-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.
3. Claim 37 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 37 discloses the drive member forms an abutment disposed at an inner side of the crank arm, which is not disclosed or shown in the elected embodiment. Accordingly, claim 37 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

4. Receipt is acknowledged of the formal drawings filed 11/13/00 which have been approved.

Specification

5. The disclosure is objected to because of the following informalities: In page 4, line 25, the sleeve coupler is indicated by two reference numerals 26 and 70. It is suggested to replace "70" with --26--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4, 6, 8, 10, 14, 15, 19, 20 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang ('804). Chang discloses a drive mechanism for a bicycle transmission, the drive mechanism comprises a crank arm (11) which has a rotational axis, a drive member (35) which includes a first abutment surface (355), the abutment surface faces a forward direction of the crank arm. The drive member also includes a non-concave first slope surface which is opposite the abutment surface and facing the rearward rotational direction of the crank arm.

In claim 2, first abutment surface (355) is perpendicular to the outer peripheral surface of the crank arm.

In claim 4, the drive member is coaxial with the rotational axis (figs. 5-8).

In claim 6, the drive member comprises an annular ring (35).

In claims 8-10, the drive member has a second abutment surface (fig.8), and the first abutment surface is located 180° from the second abutment surface (fig.8).

In claim 14, the annular ring is mounted around the rotational axis.

Regarding claims 15, the first and second abutments (355) are substantially perpendicular to the outer periphery.

In claim 20, note, the pedal mounting hole at the opposite ends of the crank arm.

8. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Guiles('658). Guiles discloses a drive mechanism comprising a crank arm (8) which includes a rotational axis (1), a drive member (9) which comprises an abutment (10) facing a forward rotational direction, a non-concave first sloped surface extending from a radially outer portion of the abutment and facing a rearward rotational direction, the first abutment is substantially perpendicular to the outer peripheral surface of the crank arm, and the drive member is coaxial with the rotational axis.

In claim 6, the drive member comprises a drive ring.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Browning('794). Chang does not disclose a sprocket mounting member for mounting a sprocket to the crank arm. Browning discloses a sprocket mounting member (51) comprising four mounting arms (52), a large diameter sprocket and a small diameter sprocket are retained to the mounting member in order to make the system easy to operate and to increase the ease during replacement of sprockets. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chang device to include the limitations of Browning in order to make the system easy to operate and to increase the ease during replacement of sprockets.

11. Claims 32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang. Chang discloses the claimed invention except that the outer peripheral surface which intersect the radial inner portion of the abutment surface extend for at least 20°. It would have been a matter of obvious design choice to one of ordinary skill in the art at the time of the invention to modify the peripheral surface such that the abutment surface extends at an angle of at least 20°, since applicant has not disclosed that having the surface extend for at any specified angle solves any stated problem or is for any particular purpose and it appears that the abutment surface would perform equally well with a surface extending at any angle that falls within a desirable specified range.

Allowable Subject Matter

9. Claims 7, 24-25 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (703) 305-6877. The examiner can normally be reached on Monday -Thursday 7:30 am-600 pm.

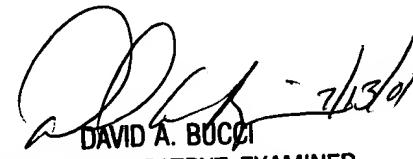
Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hsu('536) discloses a crank arm assembly which comprises a sprocket mounting member, a plurality of sprockets (1) are mounted on the mounting member, the large diameter sprockets includes shift assist mechanism (12) for assisting the travel of the chain between the large sprocket and the small sprocket. Yamanaka('072) discloses a crank arm comprising a sprocket mounting member (66) and a boss (44). Niculescu('613) and Moretz('852) disclose a crank arm comprising a sprocket mounting member. Liu('503)discloses a crank arm comprising a drive mechanism (262).

Art Unit: 3682

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3597 for regular communications and (703) 305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

mc
Charles m/c
July 12, 2001